

CLAIMS

What is claimed is:

- 1 ^{sub} 1. A method comprising:
2 A-1 dividing a set of target devices to which a message is targeted into a number of
3 subsets of target devices, wherein the subset to which a particular device belongs is
4 determined based on an identifier of the device and the number of subsets of target
5 devices; and
6 varying the timing with which the message is communicated to the respective
7 subsets of target devices.
- 1 2. The method of claim 1 wherein determining a set of target devices to
2 which the message is targeted comprises:
3 broadcasting the message over a network;
4 receiving one or more responses to the message from target devices coupled to the
5 network;
6 estimating a number of devices coupled to the network; and
7 determining a number of subgroups based, at least in part, on the estimated
8 number of devices coupled to the network.
- 1 3. The method of claim 1 wherein determining a set of target devices to
2 which the message is targeted comprises:
3 multicasting the message to a subnet of a network;
4 receiving one or more responses to the message from target devices of the subnet;

5 estimating a number of devices in the subnet; and
6 determining a number of subgroups based, at least in part, on the estimated
7 number of devices in the subnet.

1 4. An article comprising a machine-accessible medium to provide machine-
2 readable instructions that, when executed, cause one or more electronic systems to:
3 divide a set of target devices to which a message is targeted into a number of
4 subsets of target devices, wherein the subset to which a particular device belongs is
5 determined based on an identifier of the device and the number of subsets of target
6 devices; and
7 vary the timing with which the message is communicated to the respective subsets
8 of target devices.

1 5. The article of claim 4 wherein the sequences of instructions that cause the
2 one or more electronic systems to determine a set of target devices to which the message
3 is targeted further comprises sequences of instructions that, when executed, cause the one
4 or more electronic systems to:
5 broadcast the message over a network;
6 receive one or more responses to the message from target devices coupled to the
7 network;
8 estimate a number of devices coupled to the network; and
9 determine a number of subgroups based, at least in part, on the estimated number
10 of devices coupled to the network.

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1 6. The article of claim 4 wherein the sequences of instructions that cause the
2 one or more electronic systems to determine a set of target devices to which the message
3 is targeted further comprises sequences of instructions that, when executed, cause the one
4 or more electronic systems to:

5 multicast the message to a subnet of a network;

6 receive one or more responses to the message from target devices of the subnet;

7 estimate a number of devices in the subnet; and

8 determine a number of subgroups based, at least in part, on the estimated number
9 of devices in the subnet.

1 7. An electronic data signal embodied in a data communications medium
2 shared among a plurality of network devices comprising sequences of instructions that,
3 when executed, cause one or more electronic systems to: divide a set of target devices
4 to which a message is targeted into a number of subsets of target devices, wherein the
5 subset to which a particular device belongs is determined based on an identifier of the
6 device and the number of subsets of target devices; and

7 vary the timing with which the message is communicated to the respective subsets
8 of target devices.

1 8. The electronic data signal of claim 7 wherein the sequences of instructions
2 that cause the one or more electronic systems to determine a set of target devices to

5 varying the timing with which the respective subsets of target devices respond to
6 the message.

1 11. The method of claim 10 wherein determining a set of target devices to
2 which the message is targeted comprises:
3 broadcasting the message over a network;
4 receiving one or more responses to the message from target devices coupled to the
5 network;
6 estimating a number of devices coupled to the network; and
7 determining a number of subgroups based, at least in part, on the estimated
8 number of devices coupled to the network.

1 12. The method of claim 10 wherein determining a set of target devices to
2 which the message is targeted comprises:
3 multicasting the message to a subnet of a network;
4 receiving one or more responses to the message from target devices of the subnet;
5 estimating a number of devices in the subnet; and
6 determining a number of subgroups based, at least in part, on the estimated
7 number of devices in the subnet.

1 13. An article comprising a machine-accessible medium to provide machine-
2 readable instructions that, when executed, cause one or more electronic systems to:

3 divide a set of target devices to which a message is targeted into multiple subsets
4 of target devices, wherein the subset to which a particular device belongs is determined
5 based on an identifier of the device; and
6 vary the timing with which the respective subsets of target devices respond to the
7 message.

1 14. The article of claim 13 wherein the sequences of instructions that cause
2 the one or more electronic systems to determine a set of target devices to which the
3 message is targeted comprises sequences of instructions that, when executed, cause the
4 one or more electronic systems to:

5 broadcast the message over a network;
6 receive one or more responses to the message from target devices coupled to the
7 network;
8 estimate a number of devices coupled to the network; and
9 determine a number of subgroups based, at least in part, on the estimated number
10 of devices coupled to the network.

1 15. The article of claim 13 wherein the sequences of instructions that cause
2 the one or more electronic systems to determine a set of target devices to which the
3 message is targeted comprises sequences of instructions that, when executed, cause the
4 one or more electronic systems to:
5 multicast the message to a subnet of a network;
6 receive one or more responses to the message from target devices of the subnet;

7 estimate a number of devices in the subnet; and
8 determine a number of subgroups based, at least in part, on the estimated number
9 of devices in the subnet.

1 16. An electronic data signal embodied in a data communications medium
2 shared among a plurality of network devices comprising sequences of instructions that,
3 when executed, cause one or more electronic systems to:
4 divide a set of target devices to which a message is targeted into multiple subsets
5 of target devices, wherein the subset to which a particular device belongs is determined
6 based on an identifier of the device; and
7 vary the timing with which the respective subsets of target devices respond to the
8 message.

1 17. The electronic data signal of claim 16 wherein the sequences of
2 instructions that cause the one or more electronic systems to determine a set of target
3 devices to which the message is targeted comprises sequences of instructions that, when
4 executed, cause the one or more electronic systems to:
5 broadcast the message over a network;
6 receive one or more responses to the message from target devices coupled to the
7 network;
8 estimate a number of devices coupled to the network; and
9 determine a number of subgroups based, at least in part, on the estimated number
10 of devices coupled to the network.

1 18. The electronic data signal of claim 16 wherein the sequences of
2 instructions that cause the one or more electronic systems to determine a set of target
3 devices to which the message is targeted comprises sequences of instructions that, when
4 executed, cause the one or more electronic systems to:

5 multicast the message to a subnet of a network;
6 receive one or more responses to the message from target devices of the subnet;
7 estimate a number of devices in the subnet; and
8 determine a number of subgroups based, at least in part, on the estimated number
9 of devices in the subnet.

1 19. A method comprising:
2 receiving a message via a network, the network coupled to a group of devices, the
3 message having a bins value indicating a number of subgroups to divide the network
4 devices into and a hash value indicating a specific subgroup of the number of subgroups
5 to which the message is targeted;

6 performing a hashing function with a unique identifier and the bins value to
7 generate a hash result; and
8 responding to the message if the hash result equals the hash value.

1 20. The method of claim 19 wherein the message is a discovery request
2 message.

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21. An article comprising a machine-accessible medium to provide machine-readable instructions that, when executed, cause one or more electronic systems to:

receive a message via a network, the network coupled to a group of devices, the message having a bins value indicating a number of subgroups to divide the network devices into and a hash value indicating a specific subgroup of the number of subgroups to which the message is targeted;

perform a hashing function with a unique identifier and the bins value to generate a hash result; and

respond to the message if the hash result equals the hash value.

22. The article of claim 21 wherein the message is a discovery request message.

23. An electronic data signal embodied in a data communications medium shared among a plurality of network devices comprising sequences of instructions that, when executed, cause one or more electronic systems to:

receive a message via a network, the network coupled to a group of devices, the message having a bins value indicating a number of subgroups to divide the network devices into and a hash value indicating a specific subgroup of the number of subgroups to which the message is targeted;

perform a hashing function with a unique identifier and the bins value to generate a hash result; and

respond to the message if the hash result equals the hash value.

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- 1 24. The electronic data signal of claim 23 wherein the message is a discovery
- 2 request message.

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